COLORADO
Colorado Water Conservation Board
Department of Natural Resources

1313 Sherman Street
Denver, CO 80203

P (303) 866-3441
F (303) 866-4474

John Hickenlooper, Governor

Robert Randall, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Suzanne Sellers, Interstate, Federal & Water Information Section

DATE: July 19-20, 2017 Board Meeting

AGENDA ITEM: 13. Platte River Recovery Implementation Program Update

---

Background

The Platte River Recovery Implementation Program (Program) was created to recover four threatened and endangered species (the whooping crane, interior least tern, piping plover and pallid sturgeon) in Nebraska while allowing water use and development to continue. At the March 2014 CWCB meeting, I presented a summary of the key Program efforts since 2011. Below is a summary of Program efforts since my last update and a description of some of the efforts that the Program will be working on in the near future.

Staff Recommendation

This memorandum is provided as information only.

Discussion

First Increment Extension

The Program is founded on an agreement, signed in 2006, between the governors of Wyoming, Colorado and Nebraska, and the Secretary of the Interior. This agreement set up the program to operate in increments, with the first increment beginning in 2007 and, originally, ending in 2019. Each increment is designed to complete specific program objectives with defined contributions from each of the states and the federal government, all within a defined time period. The Governance Committee (GC) of the Program consists of representatives from Colorado, Wyoming, Nebraska, the Bureau of Reclamation, the Fish and Wildlife Service (FWS), South Platte River water users, North Platte River water users, Nebraska water users, and environmental groups.

In June of 2017, the GC agreed to extend the first increment to 2032 in order to provide additional time to complete Program water projects and to complete monitoring and research to determine the best use of Program water. After completing a National Environmental Policy Act (NEPA) analysis and amending the Biological Opinion (BO), the governors of each

state and the Secretary of the Interior will need to approve the extension. Congressional authorization and associated federal and state appropriations will also need to be obtained.

Financial Resources

The federal agencies have the largest financial obligation of $157 million through 2019; to date, they have contributed approximately $88.4 Million of this amount. Wyoming has fully funded its original obligation ($6 million) and contributed roughly $3.5 million of those funds so far. Colorado's original obligation through 2019 was $24 million (in 2005 dollars) and we have approximately $27.4 million in authorizations from the General Assembly (along with interest income) towards this obligation.

As mentioned above, the GC has approved a first increment extension requiring an additional $106 million in cash. To cover these costs, the federal agencies will contribute another $78 million, while Colorado and Wyoming will contribute an additional $24.9 million and $3.1 million, respectively. Additional funds will need to be authorized to cover inflationary adjustments. The disparity between the cash contributions of each state take into account each state's water contributions, which is discussed in more detail below.

Land

The Program's original land objective for the first increment was to obtain and restore 10,000 acres. The Program currently protects in excess of 12,000 acres, which exceeds the 10,000-acre milestone. As part of the agreement to extend the first increment, Program partners have agreed to acquire an additional 1,500 acres of land with the intent of establishing a new habitat complex. Although the program has now acquired enough land (12,650 acres) to meet its overall land habitat goal, an additional 60 acres of off-channel sand and water habitat must be acquired to meet a subcategory land requirement.

In 2014, 2015 and 2016, the Program: (1) acquired approximately 1,100 additional acres of land for habitat purposes; (2) performed various land management activities (fencing, tree clearing, repairs, controlled burns, weed spraying, disking, seeding, creation/maintenance of wetlands, etc.); (3) continued to allow public access for hunting and other activities; and (4) leased some of these lands for agricultural use (grazing, crops, etc.). The Program also acquired 585 acres of land for development of future water projects, which is not counted toward the land habitat goals.

Water

The Program Agreement commits the three states to certain water obligations, including: (1) a total of 80,000 acre-feet annually to be retimed to reduce target flow shortages at the associated habitat in Nebraska, and (2) additional water to cover each state's new (post-1997) depletions, which change over time. To meet the 80,000 acre-feet requirement, the states of Colorado, Wyoming and Nebraska contribute 10,000 acre-feet, 20,000 acre-feet, and 50,000 acre-feet, respectively. The three states each have their own water projects to meet these obligations; Colorado's is the Tamarack Project. In addition, the Program as a whole, agreed to provide an average of 50,000 to 70,000 acre feet of water per year. This amounts to a total of 130,000 to 150,000 acre feet of reductions to target flow shortages to cover depletions that occurred up to 1997.

As part of the agreement to extend the first increment, the Program partners agreed to invest in the science necessary to determine if the last 10,000 acre-feet of the Program's obligation is justified. The last 10,000 acre-feet will be obtained only if justified by the science. This justification is prudent due to the exponentially high cost associated with obtaining this water. The extension also includes an agreement to attempt to expand the conveyance capacity (beyond the current commitment of 3,000 cfs) of the North Platte River at the "Choke Point" as practicably achievable with available resources. The Choke Point is an area of constriction in the North Platte River channel that prevents the program from releasing adequate flows from its Environmental Account in Lake McConaughy.

Colorado-Related Water Activities

Regarding Colorado's water obligations, we have an obligation to retime an average of 10,000 acre-feet of water, from times of surplus at the habitat (December and January) to times of deficit at the habitat (February through June). The retiming of an average of 10,000 acre-feet of water is often referred to as the "Tamarack I" obligation. Additionally, Colorado has an obligation to retime water from times of net accretion (generally July through April), due to post-1997 population increases, to times of net depletion, due to these same increases (May and June). The retiming of these accretions from Colorado's post-1997 population increases is often referred to as the "Tamarack II" obligation.

Although the Tamarack Project is operational, it sustained damage during the 2015 flood. Colorado Parks and Wildlife (CPW) hopes to receive Federal Emergency Management Agency (FEMA) funds to repair the damage this fall. CPW is also working on expanding the Tamarack Project to the other side of Highway I-76. The expansion is being funded by the South Platte Water Related Activities Program (SPWRAP). The construction contract has been awarded, with fieldwork expected to begin this summer.

During the 2014 and 2015, the State used Species Conservation Trust Fund (SCTF) dollars to contribute to the repair of Ducks Unlimited's (DU) Heyborne recharge project (Heyborne) as a result of damage caused by the 2013 flood. Unfortunately, right after the repairs were completed, the 2015 flood caused additional damage. With assistance from SPWRAP, rehabilitation took place in 2016 and the project is operational. However, additional optimization is needed. The State receives credit toward our Tamarack I and II obligations from the Heyborne project. SPWRAP also leases recharge credits near the state line for this same purpose.

Program-Related Water Activities

Over the last three years, the Program operated several water projects in an effort to meet the Program's water obligation. These projects and their assigned score in acre-feet of average annual reductions to target flow shortages are shown below.

Project	**Score (acre-ft/yr)**
Expanded Phelps Canal Recharge/Cook Recapture Well	2,860
Pathfinder Modification Municipal Account Lease	4,000
No-Cost Net Controllable Conserved Water (NCCW) Project	260

Project	Score (acre-ft/yr)
Central Nebraska Public Power and Irrigation District (CNPPID) Lease	2,600*
Elwood Reservoir Seepage	442*
Nebraska Public Power District (NPPD) - Dawson County & Gothenburg Canals	345*
CNPPID Irrigator Water Leasing	1,552*
Central Platte Natural Resource District (CPNRD) Groundwater Market	tbd
Total	**12,059**

*estimated

In 2013, the Program entered into a water service agreement with CNPPID associated with the J-2 reregulating reservoir. In 2016, the Program put the J-2 reregulating reservoir project on hold until further notice. This indefinite hold was prompted by institutional hurdles and a dramatic rise in the cost to build the reservoir. Meanwhile, the Program is pursuing other water projects including additional leasing, additional recapture wells, broad scale recharge, acquiring and retiring irrigation rights, and slurry wall gravel pits.

Over the last three years, the Program has also been working to improve the channel capacity at the Choke Point. The Program is planning to repair the "State Channel" to achieve additional flood proofing during the summer of 2017. This and other planned flood proofing efforts are to support a future request to raise the flood stage. Raising the flood stage would allow more water to be safely delivered through the Choke Point.

Also during 2014, 2015, and 2016, the Program collaborated with the CWCB in developing long-range stream flow forecasts (using Hydroclimatic Indices) for the North and South Platte Rivers.

Adaptive Management Plan

The Program's Adaptive Management Plan (AMP) is designed as a systematic process for continually improving Program management by: (1) designing certain Program management activities to test alternative hypotheses and (2) applying information learned from research and monitoring.

In 2013, 2014 and 2015, the Program continued its annual monitoring program, including monitoring: whooping cranes, terns, plovers, geomorphology, in-channel vegetation, wet meadows hydrology, ground surface elevation (LiDAR) and aerial photography.

Also during this period, the following research was conducted for whooping cranes:

- Whooping Crane Telemetry Tracking Project
- Whooping Crane Stopover Site Evaluation Project
- whooping crane habitat selection analyses
- relating the ability of the Flow-Sediment-Mechanical (FSM) actions to create and maintain in-channel whooping crane roosting habitat

Related to terns and plovers, the Program conducted research and developed several manuscripts to be published in 2017 including:

- Negotiating recovery of interior least tern and piping plover on the central Platte River
- Reproductive ecology of interior least tern and piping plover in relation to Platte River hydrology and sandbar dynamics
- Least tern and piping plover nest success and brood survival at off channel sites in the central Platte River
- Interior least tern and piping plover nest site selection at managed sandpit sites along the central Platte River

As a result of these and previous actions, the Program has made considerable progress in answering the "Big Questions" that represent a distillation of the many priority hypotheses being considered by the AMP. Of note, the GC answered conclusively in 2015 that short-duration high flows (SDHFs) do not produce suitable tern and plover riverine roosting habitat. As a result, the Program used the Structured Decision Making (SDM) process to come full circle on the adaptive management process as it relates to SDHFs and terns and plovers. Future management of terns and plovers was adjusted to emphasize off-channel sand and water habitat (acquire 60 more acres), but will also allow for some in-channel nesting habitat by removing vegetation from existing sandbars (10 acres).

The Independent Science Advisory Committee (ISAC) has been convened several times over the last 3 years to review the overall scientific approach on projects initiated by the Program, and project specific independent peer reviews were also performed.

Benefits

One of the greatest benefits of the Program for Colorado is that it allows water use and development to continue through a streamlined Section 7 consultation process with the FWS. Since 2007, the FWS has provided 180 (141 in Colorado) streamlined Section 7 consultations for the three states, with no litigation occurring during that time. During the 2014 to 2016 period, Colorado benefited from 34 streamlined Section 7 consultations. South Platte water users must become a member of SPWRAP to benefit from these streamlined consultations.